

REMARKS

The Examiner is thanked for the careful review of the application as set out in the outstanding office action. Reconsideration of the application is respectfully requested.

A marked up version of the changes made to the application is attached hereto.

Claims 24-26 and 29 have been cancelled without prejudice.

Claims Rejections - 35 USC 112, 2nd Paragraph

Claims 20-23 and 27 stand rejected as being indefinite. This rejection has been mooted by amendment of Claim 20 to replace "bathing pool" with -spa-, and by amendment of Claim 27 to replace "the" water holding structure with -a- water holding structure.

Claims Rejections -35 USC 103

Claims 20, 21 and 22 stand rejected as being unpatentable over Bajka (4,322,297) in view of Tompkins et al. (5,361,215) ("Tompkins"). This rejection is respectfully traversed on the grounds that a prima facie case of obviousness has not been established, and the references do not teach or suggest the claimed invention.

Claim 20 is drawn to a method for releasing water into the water holding structure, comprising:

[1] providing a valve connected to a water supply line, the valve responsive to valve control signals to open and close, wherein the valve in an open state releases water from the water supply line into the water holding structure, and in a closed state prevents water from flowing from the water supply line into the water holding structure;

[2] providing an electronic control system responsive to a user commands through a control panel to generate the valve control signals;

[3] entering a user command through the control panel to actuate the valve;

[4] opening the valve in response to the user command;

[5] automatically closing the valve after a predetermined time has elapsed after opening the valve.

Applicants respectfully submit that neither Bajka nor Tompkins describes any of elements 1-5 of Claim 20. To establish prima facie obviousness, all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

The Examiner admits at page 4 of the action that Bajka does not teach elements 2-5, and asserts at page 3 that Bajka teaches a method for releasing water into the water holding structure, comprising providing a valve 31 connected to a water supply line (fig. 1), wherein in an open state the valve releases water from the water supply line into the water holding structure, and in a closed state prevents water from flowing into the water holding structure. Applicants respectfully disagree with this characterization of the teachings of Bajka. Valve 31 is an intake valve which allows water to be withdrawn from the water holding structure and passed through the water heating systems. Bajka is not concerned with problems associated with releasing water into the water holding structure in response to a user command.

Tompkins is cited as allegedly teaching an electronic control system responsive to user commands through a control panel (fig. 1), and entering user commands through the control panel (16:42-46). The Examiner asserts that it would have been obvious to modify Bajka with the teachings of Tompkins to provide a spa control system with accurately and efficiently controls the operation of the spa.

The Examiner further asserts that, with regard to generating the valve control signals to actuate the valve, opening the valve in response to the user command, and automatically closing the valve after a predetermined time has elapsed after opening the valve, that these features are taught by Tompkins but as they relate to other features such as pump operation, heating and jet flow (16:56-66).

Applicants respectfully disagree with these holdings, which are the product of improper attempted hindsight reconstruction. Neither Bajka nor Tompkins is concerned with releasing water into the pool or spa from a water supply line. The excerpts from Tompkins at 16:42-66 deal with actuation of the jet pump by the user, and with interlocks which couple the high speed pump 24 to the heater 26 so that the pump 24 runs before the heater turns on and after the heater turns off to prevent accumulation of hot spots. This is a problem unrelated to the problem addressed by the claimed invention.

The Federal Circuit stated the law of obviousness in In re Kotzab, 55 USPQ 2d 1313, 1316-1317 (Fed.Cir. 2000):

"A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field... Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one 'to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher,'... [citations omitted]

Most if not all inventions arise from a combination of old elements... Thus, every element of a claimed invention may often be found in the prior art... However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention... Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant..." [citations omitted]

Here, there is no teaching or suggestion found in the asserted references which would lead one to the claimed invention. The alleged motivation, i.e. to provide a spa control system ... accurately and efficiently controls the operation of the spa, is so generalized that it cannot provide any guidance leading to applicants' claimed invention of Claim 20.

For the foregoing reasons, the outstanding rejection of Claims 20-22 fails to establish a prima facie case of obviousness, and should be withdrawn.

Claim 23 stand rejected as being unpatentable over Bajka as modified by Tompkins as applied to Claims 20-22, and further in view of Sterghos et al. ("Sterghos"). Claim 23 depends from Claim 20, and adds the further limitation of "automatically closing the valve if the water level reaches an overfill level during the predetermined time interval. The rejection should be withdrawn on the grounds described above regarding the rejection of Claims 20-22, and further because the combination does not teach or suggest the claimed invention.

Sterghos describes a swimming pool control system which is said to be capable of monitoring pool conditions, including over full or under-full water levels. Yet there is no teaching or suggestion of the features of entering a user command through a control panel to actuate a water supply valve, opening the valve in response to the user command, automatically closing the valve after a predetermined time has elapsed, and automatically closing the valve if the water level reaches an overfill condition during the predetermined time interval.

The rejection of Claims 24-26 under Section 103 has been mooted by cancellation of these claims.

Claims 27-28 stand rejected as being unpatentable over Sterghos as modified by Bajka and further in view of Tompkins. The rejection is respectfully traversed on the ground that a prima facie case of obviousness has not been established, and the applied references do not teach or suggest the claimed invention.

Claim 27 is drawn to a pool controller system for controlling operation of a pool service system including a water heater, a water filter, and for providing a semi- automated water fill capability, comprising:

a valve connected to a water supply line, the valve responsive to valve control signals to open and close, wherein the valve in an open state releases water from the water supply line into a water holding structure, and in a closed state prevents water from flowing from the water supply line into the water holding structure;

an electronic controller system responsive to manually entered user commands through a control panel to generate the valve control signals, the controller system for actuating the fill valve to the open state in response to a predetermined user fill command, and for automatically closing the valve upon elapsement of a predetermined fill time interval.

Sterghos does not teach or suggest a controller system as recited in Claim 27, which is responsive to manually entered user commands to generate the valve control signals.

Bajka has been discussed above. Bajka describes valves in the filter and heater circulation paths which allow water to be withdrawn from the pool or spa,

passed through the filter or heater systems, or to empty the spa and refill it from water from the pool.

Tompkins has also been discussed above. Applicants respectfully deny that this reference teaches the features as asserted by the Examiner, e.g. "an electronic controller system responsive to manually entered user commands through a control panel to generate the valve control signals, the controller system for actuating the fill valve to the open state in response to a predetermined user fill command, and for automatically closing the valve upon elapsement of a predetermined fill time interval," citing 16:42-46 and 61-64. Tompkins does not set out the teachings as recited in the action. Rather, Tompkins, at the cited passages, discusses a panel with a series of push buttons, but none of these buttons is used to enter a user command to generate valve control signals to actuate the fill valve to the open state, nor does the controller of Tompkins automatically close the valve upon elapsement of a predetermined fill time interval. See, Tompkins at 16:42 to 17:24.

The rejection of Claim 27, as well as that of Claim 28, should be withdrawn.

New Claims 54-66

New Claim 54 is drawn to a method for automatically releasing water into the water holding structure, comprising:

- using an electronic pool control system, monitoring water parameters including water temperature and a water level sensor signal;
- in response to a water level sensor signal indicative of a low water level in the water holding structure, automatically opening a water supply valve connected to a water supply line to release water into the water holding structure from a water supply line;
- automatically closing the water supply valve after a predetermined time has elapsed since opening the valve.

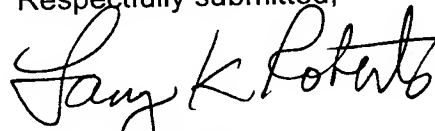
Claim 54 include some features of Claim 25, now cancelled. None of the applied references teach or suggest automatically closing the water supply valve a predetermined time interval since opening the valve. Tompkins at 16:61-64 teaches an interlock which links the pump to the heater so that the pump runs 15 seconds before the heater is turned on and 60 seconds after the heater is turned off, not this feature of Claim 54.

Claims 55-66 are allowable for reasons discussed above regarding Claims 20-22 and 27.

CONCLUSION

The outstanding rejections have been addressed, and the application is in condition for allowance. Such favorable reconsideration is solicited.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

20. (Amended) In a [bathing] spa or swimming pool installation, including a pool water holding structure, a method for releasing water into the water holding structure, comprising:

providing a valve connected to a water supply line, the valve responsive to valve control signals to open and close, wherein the valve in an open state releases water from the water supply line into the water holding structure, and in a closed state prevents water from flowing from the water supply line into the water holding structure;

providing an electronic control system responsive to a user commands through a control panel to generate the valve control signals;

entering a user command through the control panel to actuate the valve;

opening the valve in response to the user command;

automatically closing the valve after a predetermined time has elapsed after opening the valve.

23. (Amended) The method of Claim 20 further comprising:

automatically closing the valve if the water level reaches an overfill level during the predetermined time [interval].

27. (Amended) A pool controller system for controlling operation of a pool service system including a water heater, a water filter, and for providing a [an] semi-automated water fill capability, comprising:

a valve connected to a water supply line, the valve responsive to valve control signals to open and close, wherein the valve in an open state releases water from the water supply line into [the] a water holding structure, and in a closed state prevents water from flowing from the water supply line into the water holding structure;

an electronic controller system responsive to manually entered user commands through a control panel to generate the valve control signals, the controller system for actuating the fill valve to the open state in response to a predetermined user fill command, and for automatically closing the valve upon elapsement of a predetermined fill time interval.